

What is Claimed Is:

1. A method in a wireless transceiver, the method including:  
setting a gain to an initial gain value for mapping a received wireless signal to a first power value for supply of the received wireless signal to an input circuit having a prescribed input range;  
amplifying the received wireless signal by the initial gain value to the first power value;  
5 if the first power value of the received wireless signal does not exceed the prescribed input range, determining an optimum gain for the received wireless signal relative to the initial gain value and the first power value;  
if the first power value of the received wireless signal exceeds the prescribed input range, determining the optimum gain for the received wireless signal based on setting the gain to a minimum  
10 gain value; and  
outputting the received wireless signal at the optimum gain.
2. The method of claim 1, wherein the setting step includes:  
setting the initial gain value based on a dynamic range of the wireless transceiver and based on a prescribed signal to noise ratio.
3. The method of claim 2, wherein the dynamic range includes a maximum analog gain supplied by an analog front end amplifier, and a maximum range for the gain.
4. A wireless transceiver including:  
input circuit having a prescribed input range; and  
a digital gain controller configured for amplifying a received wireless signal to an optimum gain value for the prescribed input range by:  
5 (1) setting a gain to an initial gain value for mapping the received wireless signal to a first power value for supply of the received wireless signal to the input circuit,  
(2) amplifying the received wireless signal by the initial gain value to the first power value,  
(3) if the first power value of the received wireless signal does not exceed the prescribed input range, determining an optimum gain for the received wireless signal relative to the initial gain value  
10 and the first power value, and  
(4) if the first power value of the received wireless signal exceeds the prescribed input range, determining the optimum gain for the received wireless signal based on setting the gain to a minimum gain value.

5. The wireless transceiver of claim 4, wherein the digital gain controller is configured for setting the initial gain value based on a dynamic range of the wireless transceiver and based on a prescribed signal to noise ratio.

6. The wireless transceiver of claim 5, further comprising an analog front end amplifier configured for amplifying the received wireless signal by up to a maximum analog gain and outputting the received wireless signal to the digital gain controller, wherein the dynamic range includes the maximum analog gain and a maximum range for the gain.

7. The wireless transceiver of claim 6, wherein the wireless transceiver is configured as an Orthogonal Frequency Division Multiplexing (OFDM) receiver configured for receiving the received wireless signal according to IEEE 802.11a protocol.